CHBE 402: Transport Phenomena II
Spring 2020

I. General Course Information

Course Description: CHBE 402 will introduce fundamental concepts in heat and mass transfer in chemical engineering. This includes understanding the different types of heat and mass transfer, learning and applying constitutive equations, analyzing one-dimensional problems, solving two-dimensional steady and unsteady-state problems, applying finite element methods for solving multi-dimensional problems, analyzing problems that combine energy, mass, and momentum transfer b Laboratory 201.

II. Teaching Staff

Prof. Rafael Verduzco, Office located in Keck Hall room 212. Phone: x 6492. Email: rafaelv@rice.edu. Prof. Verduzco will hold office hours after class and by appointment.

Prof. Aditya Mohite, Office located in Space Science & Technology 225. Phone: x4904. Email: adm4@rice.edu. Prof. Mohite will hold office hours after class and by appointment.

Teaching Assistants: Oliver Dewey (osd1@rice.edu), Feng-Yen Chen (fc26@rice.edu), and Safiya Khalil (sk136@rice.edu).

Homework help sessions will be held Tuesday and Friday afternoons at 4PM (location TBD).

III. Textbook and Resources

Required Textbook: Theodore L. Bergman, Adrienne S. Lavine, Frank P. Incropera, and David P. DeWitt. *Fundamentals of Heat and Mass Transfer*; 8th ed.; Wiley: Hoboken, 2017. ISBN: ES8-1-119-32042-5

One copy of the course textbook will be placed on hold at Fondren Library, but each student should have his or her own copy of the textbook. Note that an e-book is available directly from the publisher at www.wiley.com.

IV. Course Website

Course content will be posted on Canvas (https://canvas.rice.edu/courses/29105) This site will be used to make announcements and post handouts, homework assignments, lecture notes, and grades. All students registered for the course should automatically have access to this site. Students that do not have access to the site should contact Prof. Verduzco or Prof. Mohite.

A course website and discussion forum has been created on piazza.com. This forum is optional and will be used for discussion on class topics and homework assignments outside of class. Profs. Verduzco and Mohite and the TAs will regularly check the website and respond to comments and questions posted. The site also allows for discussion between students.

The site can be accessed through the following link (piazza.com/rice/spring2020/chbe402/home). An email will also be sent to students registered for the course with instructions on signing up and accessing the piazza.com site.

Resources from the website learncheme.com will be used to supplement lectures in the course.

V. Grading

Grading will be determined by a combination of homework (45 %), one midterm exam (20 % total), and a final examination (35 %). Homework will normally be due by 4PM on Wednesdays. Homework can be handed in during class or in the Abercrombie room B219.

Late homework will be penalized 50 % for each day it is late and 5% for each hour it is late if turned in on the due date. After 2 days late homework will no longer be accepted. Extensions on homework assignments will be given only under limited circumstances.

Extensions on homework assignments will be given only in limited circumstances (i.e. work-related travel or other work-related responsibilities). Requests for an extension should be made one week in advance of the due date.

A grade scale will be used to determine your final letter grade. Note that the following scale is approximate and may be revised before the end of the semester:

		B+	87	C+	80		
A	93	B	85	C	77	D:	60
A-	90	B-	83	C-	70		

The table shows the minimum score you must obtain to get the corresponding grade. For example, if you finish with 86%, you will receive a B.

VI. Important Dates

Exams will be held at the times and days shown below. These are subject to change, and changes will be announced in class and through Canvas.

Wednesday, March 4: Midterm Exam, 7 – 9 PM. Location TBD.

The final exam will be a scheduled, in-class exam held during the final exam period. Time and location will be set by the Rice registrar.

VII. Honor Code Policy

Homework in this course is a valuable tool for helping you learn and retain the information taught in the course. You are encouraged to work together on the homework, but copying is not allowed. Each student will be responsible for turning in a copy of his or her own work. Any suspicion of honor code violations for homework, quizzes, or exams will be reported to the Rice Honor Council. Information about the Rice Honor System can be found at http://honor.rice.edu/

VIII. Accommodations

Any student with a documented disability seeking academic adjustments or accommodations is requested to speak with me during the first two weeks of class. Students with disabilities are also encouraged to contact disability support services (https://dss.rice.edu/) in the Allen Center, room 111.